

ANTIMICROBIAL RESISTANCE, THE SILENT PANDEMIC

The massive and inappropriate use of antibiotics in humans, animals and agriculture has prompted the emergence and spread of bacteria that are no longer susceptible to those drugs specifically designed to kill them.

TODAY, ANTIBIOTIC RESISTANCE IS DIRECTLY RESPONSIBLE FOR 1.3 MILLION DEATHS EVERY YEAR¹.

Resource-limited countries are bearing the brunt of the burden and will continue to be disproportionately affected in the coming years². This situation is all the more worrying as new therapeutic options are scarce and investments in the development of innovative molecules is declining.

This health issue is now recognized worldwide but political and financial commitments are far too limited and unequally implemented.

Without effective antibiotics³:





People would die from the simplest infections or minor injuries.

Cancer treatments, complex surgical procedures or organ transplants become almost impossible.





HEALTH SYSTEMS
AND ECONOMIES
COLLAPSE

The annual costs could become as massive as those of the 2008 global financial crisis but for a much longer time. The GDP shortfall would exceed 3.4 trillion annually after 2030.

HUMAN DEVELOPMENT IS JEOPARDIZED



Sustainable Development Goals for 2030 – such as ending poverty, ending hunger, ensuring healthy lives, reducing inequality, and revitalizing global partnerships – are likely to remain unachieved.



the right duration.



DIAGNOSTICS DRIVING ANTIMICROBIAL STEWARDSHIP FORWARD

As a world leader in in vitro diagnostics, bioMérieux has been committed to the fight against infectious diseases since 1963. We offer a unique and comprehensive range of diagnostic solutions to:

- support antimicrobial stewardship providing earlier and optimized therapy for better patient management and a responsible use of antibiotics
- inform epidemiological surveillance programs at hospital, country and global levels.

80% of our R&D budget is dedicated to the fight against antimicrobial resistance.





Does the patient need antibiotics? If so. which one?



Can the antibiotic prescription optimized?



ROLE OF DIAGNOSTIC TESTS

BIOMÉRIEUX'S COMPLETE DIAGNOSTIC SOLUTION SUPPORTS MEDICAL DECISION

Confirm bacterial infection and identify the causative pathogen to ensure optimal patient

outcomes and avoid unnecessary antibiotic use.















Determine a pathogen's

avoid adverse side effects.

the most appropriate

treatment. limit use of

resistance profile to select

broad-spectrum antibiotics and













VIDAS® B•R•A•H•M•S PCT™















Monitor patient response

to personalized treatment

duration and discontinue

antibiotics as early as

possible.

VIDAS® B•R•A•H•M•S PCT™









BIOMÉRIEUX VISION SUITE

FIGHTING ANTIBIOTIC RESISTANCE EVERYONE'S CONCERN

HEALTHCARE INDUSTRY

Preserving existing medical solutions and reinforcing the development of new antibiotics and innovative diagnostic tests

HEALTHCARE SYSTEMS

Making therapeutic and diagnostic innovations rapidly available to all

PUBLIC AUTHORITIES

Allowing adequate funding of innovation and sustainable economic models for new products



PATIENTS AND CITIZENS

adopting good hygiene habits and respecting the doctor's prescription



GOVERNMENT & PUBLIC HEALTH AUTHORITIES

Placing antimicrobial resistance at the heart of national and international health policies



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INVESTORS

Sustaining innovation, production and commercialization with responsible investments



LABORATORIES

Providing rapid and

optimized medical

decisions

actionable results for



antibiotic resistance global challenge



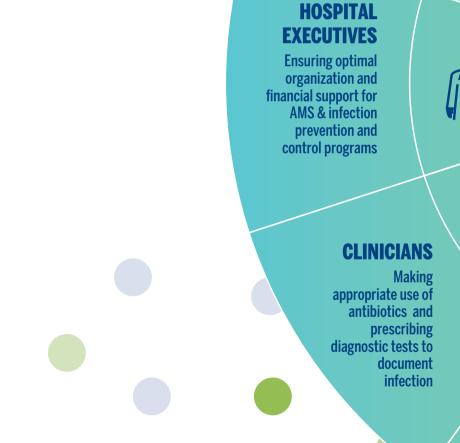
HOSPITAL **PHARMACISTS**

Helping clinicians optimize antibiotic treatment



MEDIA

Awareness on the



OUR COMMITMENTS

INTERACTION WITH OUR ECOSYSTEM

■INDUSTRY. HOSPITAL & ACADEMIC

We partner with selected hospitals to create antimicrobial stewardship Centers of Excellence intended for generation of real-world data to demonstrate the medical & economic value impact of diagnostic solutions.

We co-lead the EU-funded consortium VALUE-Dx which aims to demonstrate the medical and economic value of diagnostics in respiratory tract infections by optimizing antibiotic use.

Together with Boehringer Ingelheim and Evotec, we are partners of Aurobac Therapeutics, a joint venture to create the next generation of antimicrobials and diagnostics.

We collaborate with the main pharma companies developing new antibiotics: our tests are used in clinical trials to validate the efficacy of new treatments in targeted patients.

We support the Toulouse School of Economics to encourage research on economics models to address the market failure for innovation in antibiotics and healthcare products.

■ NATIONAL & INTERNATIONAL ORGANIZATIONS

We are a signatory to the Declaration on Antimicrobial Resistance at the 2017 World Economic Forum in Dayos.

We are a representative of the diagnostics industry on the AMR Industry Alliance's Board.

We are a leading member of the AMR working group at AdvaMed and MedTech Europe. We are piloting the French «Antibiorésistance» project of the Industrial and

Governmental Health Strategy Committee.

We partner with the Fleming Fund since 2019 to strengthen diagnostic capacity in low- and middle-income countries.

PUBLIC HEALTH IMPACT

■ PATIENT ASSOCIATIONS

We collaborate with associations to raise awareness of the importance of in vitro diagnostics in patient care and to include patients' input in the Company's decision-making processes.

■ EDUCATION AND AWARENESS

We carry out awareness and educational activities on the challenge of antibiotic resistance and to support antimicrobial stewardship for healthcare professionals, patients and the general public.

■ SURVEILLANCE

We are the only private partner of the Global Point Prevalence Survey managed by Antwerp University, that studies antibiotic consumption and antimicrobial resistance in hospitals worldwide. Fighting antibiotic resistance is at the heart of bioMérieux's global public health mission for many decades. It is part of our Corporate Social Responsibility objectives to:

- increase by 30% patient results supporting antimicrobial stewardship in 2025
- integrate 80% of antibiotics referenced in human medicine in our antibiogram solutions.

AMR and climate change are each driven by consumption of goods (carbon and antibiotics) that can provide people with valuable short-term benefits but impose long-term costs, such as existential threat from extreme weather or from lifethreatening infections⁵.

- (1) Antimicrobial Resistance Collaborators. Global burden of bacterial antimicrobial resistance in 2019
-) O'Neill J. Tackling drug-resistant infections globally: final report and recommendations. In: Ro A, ed Resistance London United Kingdom: 2016
- Vorld Bank. 2017. "Drug-Resistant Infections: A Threat to Our Economic Future Washington, DC
- World Health Organization. Global action plan on antimicrobial resistance. 2016
- (5) Roope LSJ, Smith RD, Pouwels KB, Buchanan J, Abel L, Eibich P, Butler CC, Tan PS, Walker AS, Robotham JV, Wordsworth S. The challenge of antimicrobial resistance: What economics can contribute. Science. 2019



